

**Sunset Falls Fish Transfer Site at Money Creek Bridge  
Vegetation Report**

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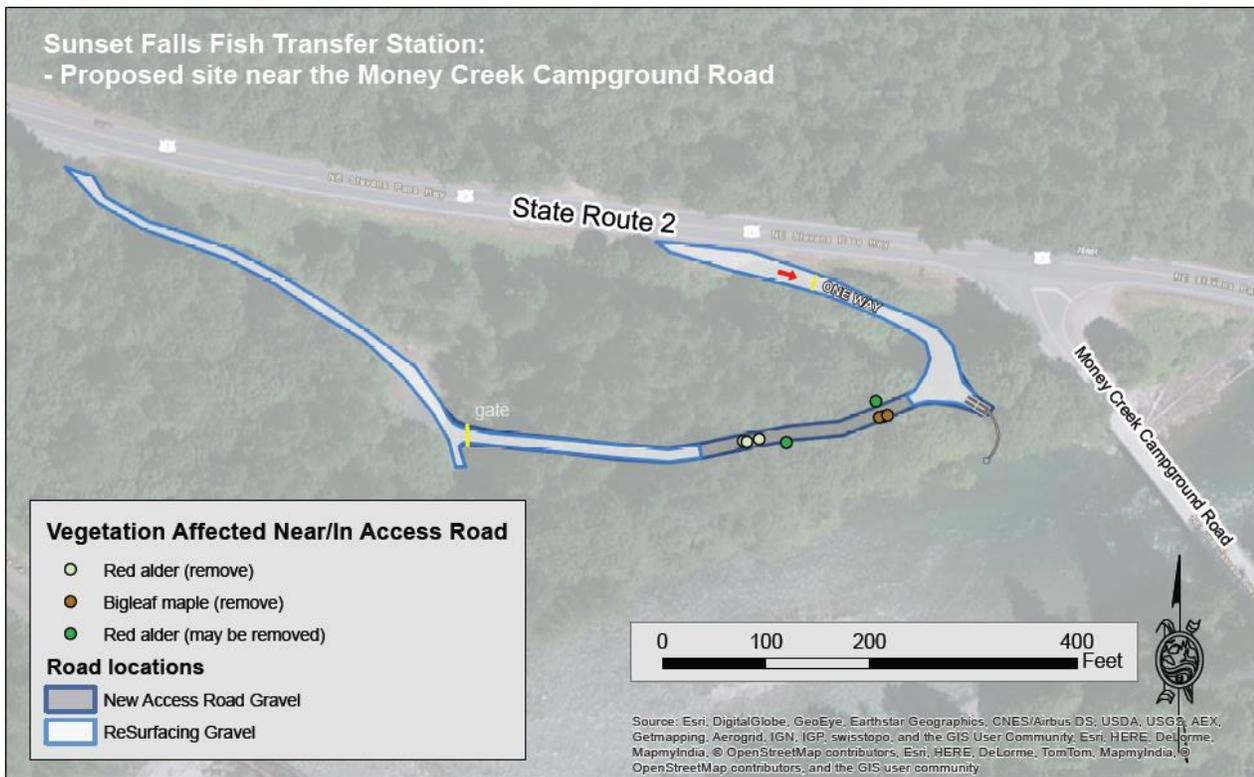
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**Summary**

WDFW has reviewed the vegetative communities within the project area and finds no wetlands present per the USACE 1988 Wetlands Delineation Manual. Impacts to this plant community in this riparian zone are minimal, with removal of between six to eight trees, see Figure 1, with an average diameter at breast height (dbh) of 11 inches. Mitigation is planned at 2:1 if 5-gallon trees of the same species can be located locally. The higher 3:1 ratio will be used if 2-gallon containers are required due to availability issues.

**Background**

WDFW has proposed to relocate the Sunset Falls Fish Drop from its current location at R.M. 54 to R.M. 62 on the South Fork Skykomish River. Without a release site, the operation of the Trap and Haul is in jeopardy. The proposed new site was originally a “Sandpit” managed by the Washington State Department of Transportation as shown in Figure 1 using the USGS Topo as the basemap. The sandpit was developed with two entrances, creating a loop with gravel access roads.



**Figure 1 – Trees to be removed**

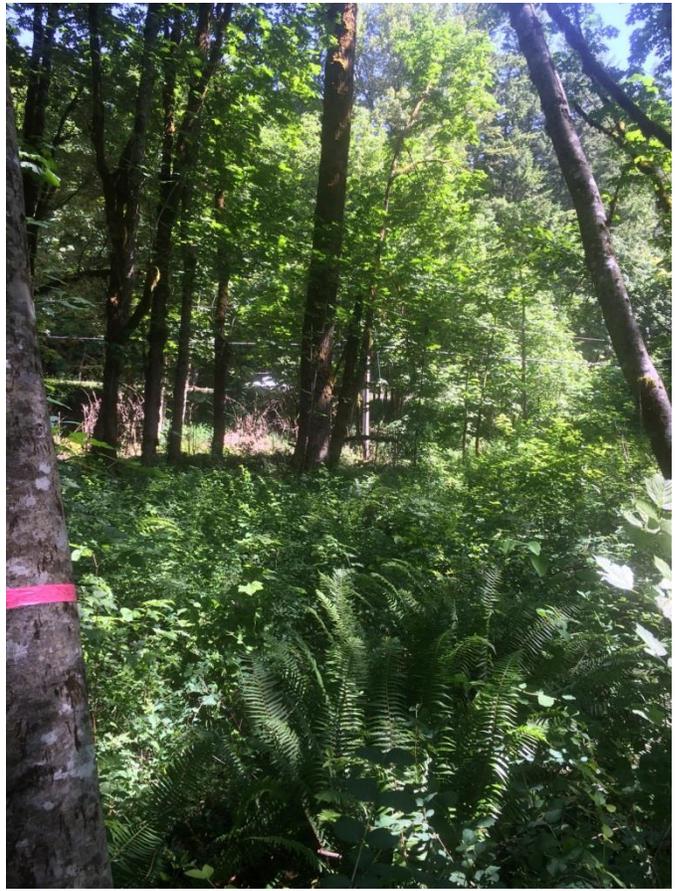
### Existing site condition

The site is forested with trees up to 70 – 80 years old. Most are red alder, with bigleaf maple, vine maple, Douglas fir, and some western red cedar. Portions of the forested area would have been logged during creation of the railroad and State Route 2. Reforestation in the vicinity of the sandpit is younger with no particular age class appearing dominate. The understory is combination of sword fern, red huckleberry, salmonberry, thimbleberry, trailing blackberry, and other rubus species.

The access roads are in various states of disrepair. The eastern access has not been in use for over a decade with encroachment of smaller trees (less than 6" dbh) and would require a minimum amount of pruning to make it passable. This road will only be used as an entrance, given its close proximity to a tunnel just east of its intersection with State Route 2. The western access receives some use annually and remains passable, though in need of maintenance, for about 500 feet to the juncture of the gravel road forming a connection to the east. This connector road is the area where the larger tress would be removed to complete the loop.



**Photo 1** View of access road looking east down the road grade overgrown with shrub species (rubus, var. species).



**Photo 2** View toward SR 2 from vehicle turn-around area showing sword ferns, alder and absence of wetland plants.

### Proposed Maintenance and Repair

WDFW proposes to improve the existing site by removing enough brush, limbs, the three bigleaf maple trees and three to five red alder trees to gain access for the planting truck, add gravel to the access roads, construct a

gravel access road between them with a space for the truck to connect to a pipe that can safely transfer fish to the S. Fork Skykomish River.

Approximately 4,000 ft<sup>2</sup> of gravel surface will be needed to (re)create the access road connection between the two gravel roads that are more clearly apparent.

Two gates will be installed to limit public access and protect the portions of the access road used only for fish transfer. Securing this site would allow WDFW and the Tulalip Tribes to continue to operate the Sunset Falls Trap and Haul facility.

**Wetland Reconnaissance**

The full area of the site between State Route 2 and river was considered as wetlands and wetland buffers were to be identified. Essentially all of this area is within in the 100-yr floodplain, per King County and FEMA records. A separate Flood Hazard Certification has been conducted by WDFW demonstrating that the 100-yr flood elevation rise from project fill is well below 0.01’.

Investigating these grounds in fall, winter, and spring uniformly proved fruitless in the search of vegetative signs of wetlands. No obligate species are present.

Further filed investigation was done in March – May, when hydrophitic vegetation, hydric soils, and hydrology indicators, are most easily determined. None of these three required field indicators were found that reached the thresholds outlined in the 1987 Corps of Engineers Wetland Delineation Manual:

Vegetation and Indicator Status from Washington’s list in the National Wetland Plant List (NWPL)

Acer circinatum	Vine Maple	FAC
Acer macrophyllum	Big-Leaf Maple	FACU
Alnus rubra	Red Alder	FAC
Polystichum munitum	Pineland Sword Fern	FACU
Pseudotsuga menziesii	Douglas-Fir	FACU
Pteridium aquilinum	Northern Bracken Fern	FACU
Rosa nutkana	Nootka Rose	FAC
Rubus parviflorus	Western Thimble-Berry	FACU
Rubus spectabilis	Salmon Raspberry	FAC
Rubus ursinus	California Dewberry	FACU
Sambucus racemosa	Red Elder	FACU

**Table 1 – Predominate vegetation within project area**

“The NWPL is a list of wetland plants and their assigned indicator statuses. An indicator status reflects the likelihood that a particular plant occurs in a wetland or upland. The five indicator statuses are: Obligate (OBL) plants that always occur in standing water or in saturated soils; Facultative Wet (FACW) plants that nearly always occur in areas of prolonged flooding or require standing water or saturated soils but may, on rare

occasions, occur in non-wetlands; Facultative (FAC) plants that occur in a variety of habitats, including wetland and mesic to xeric non-wetland habitats but commonly occur in standing water or saturated soils; Facultative Upland (FACU) plants that typically occur in xeric or mesic non-wetland habitats but may frequently occur in standing water or saturated soils; and Upland (UPL) plants that almost never occur in water or saturated soils.” From the [US Army Corps of Engineers NWPL Fact Sheet](#).

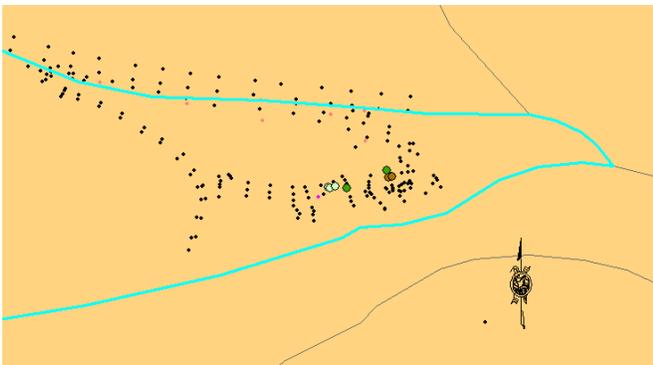
Hydric soils and hydrology indicators



Photo 5 – Soils Test Pit

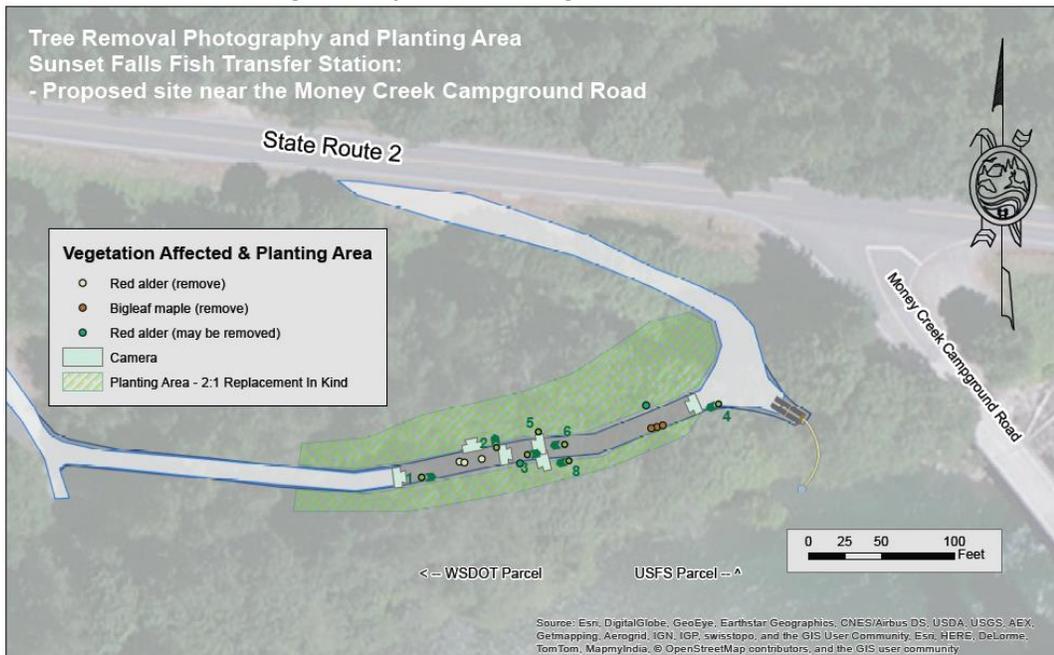
A test pit was dug within the proposed access roadway following a rain event. The soils showed no evidence of hydric soils and no ground water was found in the 18” pit.

WDFW utilizes a SOILS geodatabase created cooperatively by the Private Forest Land Grading system (PFLG) and subsequent soil surveys. PFLG was a five-year mapping program completed in 1980 for the purpose of forestland taxation. It was funded by the Washington State Department of Revenue. The Department of Natural Resources, Soil Conservation Service (now known as the Natural Resources Conservation Service or NRCS), USDA Forest Service and Washington State University conducted soil mapping cooperatively following national soil survey standards.



**Figure 3** - This soils polygon, underlying the project site, identifies the soils as **“SILTY ALLUVIUM, SILT LOAM, >60 inches deep, MODERATELY WELL Drained, and SOIL\_HYDRIC=NO”**

## Tree Removal & Planting Plan Riparian Planting Plan



**Figure 2 - Photo locations**

Between six and eight trees will be removed to complete the repair and maintenance of the loop access road. The project's Planting Plan is to assure no net loss of ecological function within shoreline zone/ riparian zone. Tree removal includes three bigleaf maples (*Acer macrophyllum*) and between three and five red alder (*Alnus rubra*). The maples average 12.5 dbh. The alders include a 17" (dbh) and the average 8" (dbh).

Plant at 2:1 ratio (five gallon): 3:1 ratio (two gallon)

Remove : Plant within designated Planting Area

3 bigleaf maples : 6 - 9 bigleaf maples per above

3 - 5 red alder : 6 - 15 red alders per above



**Photo 6 – Red alder: 9", 8", and 7" (dbh)**



**Photo 8 – Red alder 17" (dbh)**



**Photo 7 - Big leaf maples: 12" 9" 17" (dbh)**